

Comparisons of Job Characteristics

Focus Occupation: **Machinists (51-4041)**

Associated Occupation: **Mobile Heavy Equipment Mechanics, Except Engines (49-3042)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Machinists (51-4041)

Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	23.6	18.0	<< Extensive education and/or training may be required
Engineering and Technology	5.7	10.2	10.2	0 Current knowledge level may be sufficient
Physics	4.3	7.9	3.6	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 78

Focus Occupation: Machinists (51-4041)

Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Troubleshooting	4.5	13.6	10.2	<< Extensive development of skills in this area may be required
Repairing	3.4	13.2	8.5	<< Extensive development of skills in this area may be required
Equipment Maintenance	3.5	12.9	9.3	<< Extensive development of skills in this area may be required
Operation Monitoring	6.6	11.9	12.0	0 Current skill level may be sufficient
Quality Control Analysis	5.9	11.9	12.6	0 Current skill level may be sufficient
Operation and Control	5.4	10.8	11.1	0 Current skill level may be sufficient
Equipment Selection	3.3	9.3	8.6	0 Current skill level may be sufficient
Management of Material Resources	3.7	6.4	3.9	<< Extensive development of skills in this area may be required
Installation	1.7	6.0	6.0	0 Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 82			
Focus Occupation: Machinists (51-4041) Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Control Precision	6.6	13.9	13.3	0	Current ability level may be sufficient
Multilimb Coordination	6.0	13.5	10.7	<	Some improvement in abilities may be required
Extent Flexibility	4.8	13.4	8.3	<<	Extensive improvement in abilities may be required
Manual Dexterity	6.5	13.0	11.1	<	Some improvement in abilities may be required
Finger Dexterity	7.6	12.9	11.6	<	Some improvement in abilities may be required
Visualization	7.5	12.2	10.1	<	Some improvement in abilities may be required
Reaction Time	4.8	11.4	10.1	<	Some improvement in abilities may be required
Hearing Sensitivity	5.6	11.0	9.3	<	Some improvement in abilities may be required
Response Orientation	4.0	9.4	7.7	<	Some improvement in abilities may be required
Sound Localization	2.2	5.8	6.2	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 72
Focus Occupation: Machinists (51-4041) Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)		
Work Activities	Exclusivity of Activity	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Identify base metals for welding	68	
Maintain or repair industrial or related equipment/machinery	39	
Maintain welding machines or equipment	70	
Move or fit heavy objects	8	
Read blueprints	10	
Read technical drawings	7	
Set up and operate variety of machine tools	62	
Understand technical operating, service or repair manuals	6	

Use arc welding equipment	62
Use hand or power tools	2
Use knowledge of metric system	39
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 85

Focus Occupation: Machinists (51-4041)

Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)

Tools and Technologies	Exclusivity
Business function specific software	1
Computers	1
Cutting and crimping and punching tools	3
Face and head protection	7
Forming tools	2
Holding and clamping tools	3
Industry specific software	1
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Marking tools	11
Measuring and layout tools	3
Mechanical instruments	14
Pneumatic tools	8
Power tools	2
Prying and bending tools	10
Rough and finishing tools	5
Sealing tools	21
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.